

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**Diploma Engineering, Mid semester Examination**

**Semester: 4<sup>th</sup>**  
**Subject Code: 03609281**  
**Subject Name: Power Plant Engineering**

**Date: 24/01/2023**  
**Time: (1hr: 30min)**  
**Total Marks: 40**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

<b>Q.1</b>	<b>Answer any six out of Ten. (2 Marks Each)</b>	<b>(12)</b>	<b>Co/Po</b>	<b>BL</b>
	1. Define power plant.			<b>Knowledge</b>
	2. Connected load			<b>Knowledge</b>
	3. Define R/P ratio.			<b>Analyze</b>
	4. Define primary and secondary energy.			<b>Knowledge</b>
	5. Define hydroelectric power plant.			<b>Knowledge</b>
	6. Define commercial energy.			<b>Knowledge</b>
	7. Peak Load			<b>Knowledge</b>
	8. Load factor			<b>Knowledge</b>
	9. Load curve			<b>Knowledge</b>
	10. Write Equation of power of Hydro power station.			<b>Knowledge</b>
<b>Q.2</b>	A) List types of run off.	<b>(03)</b>		<b>Analyze</b>
	<b>OR</b>			
	A) State the different types of energy sources for power plants.	<b>(03)</b>		<b>Knowledge</b>
	B) List advantages of Hydro project	<b>(03)</b>		<b>Knowledge</b>
	<b>OR</b>			
	B) Explain Non commercial energy, renewable energy and non renewable energy.	<b>(03)</b>		<b>Understand</b>
	C) List various factor affecting the operation of power plant.	<b>(04)</b>		<b>Knowledge</b>
	<b>OR</b>			
	C) State the selection criteria for the location of power plants and explain any five selection criteria.	<b>(04)</b>		<b>Analyze</b>
	D) State the classification of different types of power plants.	<b>(04)</b>		<b>Knowledge</b>
<b>Q.3</b>	A) Draw a schematic layout of hydro-electric power plant.	<b>(03)</b>		<b>Analyze</b>
	<b>OR</b>			
	A) Discuss Hydrographs.	<b>(03)</b>		
	B) Explain Types of loads.	<b>(03)</b>		<b>Understand</b>
	<b>OR</b>			
	B) Explain methods of meeting the fluctuating load in power plant.	<b>(03)</b>		<b>Understand</b>
	C) List the names of any ten power plants of India with the places where they are situated.	<b>(04)</b>		<b>Analyze</b>
	<b>OR</b>			
	C) Explain Energy Rates Or Tariffs.	<b>(04)</b>		<b>Understand</b>
	D) Discuss Cost Of Electrical Energy.	<b>(04)</b>		<b>Evaluate</b>